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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,630	01/18/2001	James H. Goethel	L-F / 180DV	8472
26875	7590	12/01/2006	EXAMINER	
WOOD, HERRON & EVANS, LLP 2700 CAREW TOWER 441 VINE STREET CINCINNATI, OH 45202			WITCZAK, CATHERINE	
			ART UNIT	PAPER NUMBER
			3767	

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/764,630

Applicant(s)

GOETHEL ET AL.

Examiner

Catherine N. Witczak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-6,8-13 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) 8-13,16-20 and 22 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3-6 is/are allowed.
- 6) ☒ Claim(s) 15 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Poulsen et al (Us 6,340,357). Poulsen et al disclose in Figure 1 a syringe comprising a barrel (10) and a plunger (2) comprising a forward and rearward surface and a drive ram coupling extension (3) free of apertures and comprising a plurality of knurls (threading) protruding out rearwardly from the plunger, wherein the knurls are oriented transversely to the longitudinal axis and are adapted to the within an area enveloped by a coupling mechanism (13) of an injector drive ram.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Poulsen et al as modified by Niehoff (US 5,662,612). Poulsen et al disclose in Figure 1 a syringe comprising a barrel (10) and a plunger (2) comprising a forward and rearward surface and a drive ram coupling extension (3) free of

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apertures and comprising a plurality of knurls (threading) protruding out rearwardly from the plunger, wherein the knurls are oriented transversely to the longitudinal axis and are adapted to the within an area enveloped by a coupling mechanism (13) of an injector drive ram.

Poulsen et al disclose the claimed invention except for the plunger having a forwardly facing surface being of a slope that conforms to the slope of an interior of the conical front wall. Niehoff discloses in Figure 1A that it is known to use a plunger having a sloped forwardly facing surface. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Poulsen et al with a plunger having a sloped forwardly facing surface as taught by Niehoff, since such a modification would provide for a plunger that would be more efficient in expelling substance from a barrel having a conical tip.

#### *Claim Objections*

Claims 15 and 21 are objected to because of the following informalities: they claim an imaginary longitudinal axis. Appropriate correction is required. Examiner suggests omitting the term "imaginary" and simply claiming a longitudinal axis.

#### *Allowable Subject Matter*

3. Claims 1 and 3-6 are allowed.

As to claim 1, the prior art does not disclose or render obvious at the time the invention was made a plunger having a knurled rearwardly facing extensions, whereing the extension is knurled along a portion adapted to be withing an area enveloped by a coupling mechanism, the knurls being a series of ridges or grooves that are not adapted to interlockingly engage with the coupling mechanism.

#### *Response to Arguments*



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4. Applicant's arguments, see Arguments, filed 9/11/2006, with respect to claims 1 and 3-6 have been fully considered and are persuasive. The rejection of claims 1 and 3-6 has been withdrawn.

5. Applicant's arguments with respect to claims 15 and 21 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine N. Witczak whose telephone number is (571) 272-7179. The examiner can normally be reached on Monday through Friday, 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Sirmons can be reached on (571) 272-4965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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KEVIN C. SIRMONS  
SUPERVISORY PATENT EXAMINER  
